

CERTIFICATE OF ANALYSIS

PRODUCT NAME: Pierce™ Premium-Grade TCEP HCl 1g

PRODUCT NUMBER: PG82080

LOT NUMBER: ZF394541

SPECIFICATIONS:

MOLECULAR WEIGHT: 286.65 **Formula:** C₉H₆ClO₆P

VISUAL: Snow white crystalline solid, free of foreign material.

IDENTITY:

The I.R. scan must show only peaks characteristic for the structure and functional groups of the compound being tested.

The NMR spectrum shows only peaks characteristic for the structure and functional groups of the compound being tested.

SOLUBILITY: The solute of a 310 g/L solution prepared in distilled water must remain in solution.

NMR: ≥ 95%

WATER CONTENT: (Karl Fisher): ≤ 2.0%

TRACE ANALYSIS: All metals, including lead, ≤ 50 ppm

FUNCTIONAL ASSAY: TCEP HCl reduces ≥ 90% of DNTB to yield TNB.

RESULTS:

MOLECULAR WEIGHT: 286.65 **Formula:** C₉H₆ClO₆P

VISUAL: Snow white crystalline solid, free of foreign material.

IDENTITY:

The I.R. scan shows only peaks characteristic for the structure and functional groups of the compound being tested.

The NMR spectrum shows only peaks characteristic for the structure and functional groups of the compound being tested.

SOLUBILITY: The solute of a 310 g/L solution prepared in distilled water remains in solution.

NMR: 100%

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CERTIFICATE OF ANALYSIS

WATER CONTENT: (Karl Fisher): 0.3%

TRACE ANALYSIS: All metals, including lead, ≤ 50 ppm

FUNCTIONAL ASSAY: TCEP HCl reduces $\geq 101\%$ of DNTB to yield TNB.

ADDITIONAL TESTING:
Melting Point: 179-180 °C

Publish Date: 7/9/2024

Timothy Morton, Sr. Quality Chemist



[Rev.001]

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